

FASTENING ARRANGEMENT FOR A SPLIT CASING

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ABSTRACT OF THE DISCLOSURE

A casing of a hydraulic machine such as a gas
turbine is formed as a horizontally split type flangeless
10 casing. The flangeless casing consists of an upper
casing and a lower casing joined together at joint faces
and fastened by fastening bolts. The fastening bolt has
a screw thread which engages the threaded hole on the
15 joint face of the lower casing. A bolt hole having an
internal screw thread and through which the fastening
bolt passes is provided in the upper casing. A sleeve
having an external screw thread is fitted into the bolt
hole of the upper casing by engaging the external screw
of the sleeve with the internal sleeve of the bolt hole.
20 An enlarged diameter portion is formed on a shaft of the
fastening bolt at the portion where the enlarged diameter
portion abuts an upper end face of the sleeve when the
fastening bolt is screwed into the threaded hole in the
lower casing. When the fastening bolt is tightened, the
25 shaft tensile force of the bolt is received by the
abutment of the enlarged diameter portion and the upper
end face of the sleeve and, then, transferred from the
sleeve to the upper casing through the engagement of the
external screw thread of the sleeve and the internal
30 screw thread of the bolt hole of the upper casing and
generates the fastening force which presses the upper
casing to the lower casing.